Orthophotography Workgroup

To: Orthophoto Workgroup Members
From: Jill Saligoe-Simmel
Re: September 23, 2002 Minutes
Date: September 23, 2002

Location: IDEM 12th floor IR conference room, Indiana Govt Center North
Present: Nathan Eaton, Jim Stout, Bob Wilkinson, Roger Koelpin, Doug Marvel, Mike Wood, Irv Goldblatt, Jill Saligoe-Simmel, James Robb

1. Review of Indiana Framework - I-Team strategy and goals
2. Review of current Ortho I-Plan from 2001 (pgs 28-30 in current plan at http://www.in.gov/ingisi/plan/index.html Section 4)
   a. The following content is missing from 2001 I-Team report:
      i. Estimated investment in this theme
      ii. Data steward(s)
      iii. Priorities
      iv. Data requirements and stakeholders
      v. Roles and responsibilities
      vi. Maintenance and funding

3. Driving issues, data requirements and stakeholders (see Table 1) – we reviewed this item with the workgroup members that were present, other stakeholders were identified
   a. Wetland Inventory Updating
      i. **IDEM** (Jamie Robb) – need orthophotography to update the National Wetland Inventory (NWI) (also need DEMs and NHD); would like to have orthos maintained in a cycle to monitor change; they are gathering cost information presently; the time frame is open, though realistically looking toward 2004; Env Quality Services Council (EQSC) is a stakeholder in this (last year, Sen. Simpson introduced proposal for updating the NWI); indicated that state wont spend over $500k; NWI will not cost share on media acquisition, but will cost share on wetland classification 50/50;
      ii. **Federal Highway Administration** (Jamie spoke with Larry Heil) – is interested in updating wetland inventory also
   b. Transportation

i. **Indiana Department of Transportation** (Mike Wood) – used DOQQ to add certified roads; local government sends information to INDOTs Program Development Area; INDOT used to go out and drive new roads to collect certified mileage, now they measure off the DOQQs saving money because it limits field crews; INDOT can use updated DOQs to draw new roads onto their base map; their priority would be selectively covering counties or other geography that have changed most (for roads) since 1997. INDOT also uses aerial photography to measure aggregate quaries.

One of INDOTs problems with the current DOQQs is the need for TIFF files (converted from MrSids); Mike is converting BSQ files to TIFFs; there is a high demand for this from contractors / surveyors; this may be a technology gap that is being narrowed w/latest and greatest software releases (?)

c. Flood Hazard Mapping
i. Department of Natural Resources (Bob Wilkinson) – DNR does in-house FEMA type studies where DOQQ is the minimum base map; the need updated DOQQs for dam safety studies – ex. They look for houses downstream from dams; DNR Forestry and Fish & Wildlife both use DOQQs, however development (i.e., land cover change) is typically low in their target areas, however they may be interested to see updated wetland inventory; there is some overlap with NWI and construction in the floodway (implicates Flood Control Act and Lake Preservation Act); DNR Soil Conservation will have similar needs to NRCS

d. Public Land Records
i. State Land Office (Rog, needs follow up) – primary mission is to maintain record of state land ownership; no apparent plans to incorporate digital, no apparent funding

e. Counties
i. IMAGIS (Jim Stout) – rural and urban areas have different needs; greater Indpls area counties (except Shelby and Morgan) have ~1ft pixels +/- 1 meter, Marion and Hamilton have 1 meter DEMs; public safety, land use, planning, development, planning/monitoring, economic development can use lower resolution; cadastral mapping and infrastructure management need high resolution; larger cities that have their own public utilites need high resolution; growing communities fly every 2-3 years; Marion County (400 mi^2) does annual updates at a cost ~$150k/yr using existing digital elevation model (DEM); cost are slightly lower in rural counties; IMAGIS gets planimentrics updated (off of orthophotos) every 2 years at a cost of ~$100k and have been looking into upding DEM using LIDAR ($500k for 2ft contour

DEM); would be happy to donate or cost-share; data requirements – leaf off spring, annual, delivery date by late Aug/early Sep but would like shorter turn delivery; most counties update every 2-3 years, rural 5 years, a few never; Hendrix, Hamilton, Marion do complete coverage, some do selective coverage (less often over agricultural lands); vast majority of counties will use it for cadastral mapping and can use it at 1 ft pixels (2 ft in rural areas); local govt tends to use DOQ as their base map.

    f. Other stakeholders identified but not at the table yet…
  i. Multi-county utility companies (typically use DOQs as a base)
  ii. Homebuilders
  iii. Economic development
  iv. Realtors
  v. Land and water conservation districts
  vi. River basin commissions
  vii. Environmental groups
  viii. Brownfields
  ix. Army Corp of engineers
  x. EPA
  xi. SEMA / FIMA / NIMA / C-TASC
  xii. County EM
  xiii.
  xiv. Farm Serves Admin / NRCS (require leaf on)
  xv. Forest Service (require leaf on)
  xvi. ILRC

4. TASK ITEM FOR WORKGROUP: Goal was set to document of costs and benefits of a NAPP DOQQ program vs. state program (Roger Koelpin and Doug Marvel agreed to work on this item)
A spectrum of options was identified:

Statewide Program	Build on what we have
1. Cost estimate 2. Ability to meet stakeholder reqs	1. Cost estimate 2. Ability to meet stakeholder reqs
• Comprehensive • Statewide • Timeframe: 2004 flight, need deals in place by early Spring 2003 for state and June 2003 for local Council budget hearings	• Take existing DOQQs and add local orthoimagery to "create" best available • Document indivc county costs • Licensing issues (?)

5. Goal setting and **assignments** for workgroup:
    a. Get GIS Survey results to this workgroup (Jill will attempt to distribute before next meeting or at least come with to next meeting)
    b. Get cost estimates (Roger and Doug – pls note, post meeting Scott Russell, 636-795-6659 scottr@surdex.com, from Surdex Corp volunteered to help
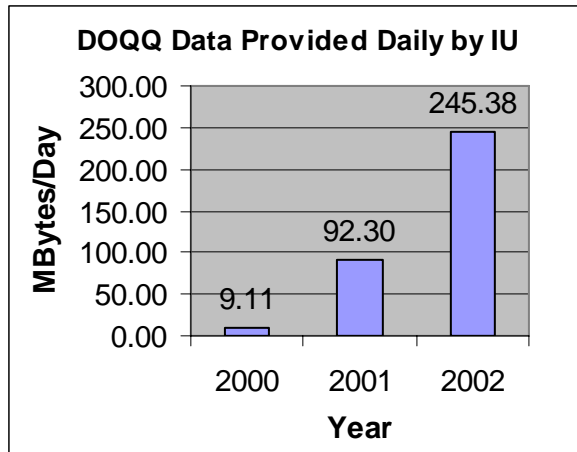
also) Scott – he will work on getting costs together, indicated about 20% increase in cost between bw & color, we should work on getting him boundary information (shape files)

  c. Propose cost-share model among partners (on to do list – pls consider for next meeting)

  d. Contact potential stakeholders to participate (Jill)

6. **NEXT MEETING**: Oct 21, 3 – 4:30pm
  IDEM IT Conference Room, 12th floor

Table 1. Summary of Driving Issues, stakeholders, and data requirements

Wetland Inventory Updating					
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
IDEM FHWA EQSC	Color IR	>= 5 meter	?	Spring, leaf-off, high water	May like stereo pairs
Transportation					
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
INDOT					
Flood Hazard Mapping					
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
IDNR SEMA					
Homeland Security					
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
C-TASC SEMA					
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**
Stakeholders	**color**	**resolution**	**accuracy**	**conditions**	**other**

Table 2. Statistics from IU on how much of the digital orthophoto information is being downloaded from their Internet MassStor site. Assuming most of the data being requested is in the MrSID format, they are providing nearly 200 orthophotos to the public each day.

DOQQ Data Provided Daily by IU

(Note: partial year data for 2000 (Sept – Dec) and 2002 (Jan – July))

Side note: To make the most of our limited time, workgroup members reviewed the following materials prior to the meeting:

1. 2001 I-Team Orthophography framework inventory at http://www.in.gov/ingisi/plan/Section4_8_01.pdf (pages 8-10)

2. Refer to the New York Statewide Digital Ortho Program at
http://www.nysgis.state.ny.us/orthoprogram.htm
and New York document I'm posting to our eProject direcotry (very good resource - thanks Charley)

3. Review background information about NAPP and NDOP at the following
sites:

- National Aerial Photography Program
http://edcwww.cr.usgs.gov/Webglis/glisbin/guide.pl/glis/hyper/guide/napp

- National Digital Orthophoto Program
http://mapping.usgs.gov/www/ndop/